

**WHAT IS CLAIMED IS:**

1 1. A method of extracting from an input image a graphical bar code  
2 containing graphically encoded information, comprising:  
3 trimming non-graphical bar code regions from the input image based upon  
4 estimated position coordinates for a detected graphical bar code candidate to produce  
5 a trimmed graphical bar code candidate for decoding.

1 2. The method of claim 1, further comprising cropping the input image  
2 before trimming based upon estimated position coordinates for a detected graphical  
3 bar code candidate to produce an inclusive image region encompassing the detected  
4 graphical bar code.

1 3. The method of claim 1, further comprising computing the angular  
2 orientation of the detected graphical bar code candidate.

1 4. The method of claim 3, wherein the non-graphical bar code regions are  
2 trimmed based upon intensity histogram profiles obtained by summing intensity  
3 values along orthogonal axes corresponding to the computed angular orientation of  
4 the detected graphical bar code candidate.

1 5. The method of claim 4, wherein the non-graphical bar code regions are  
2 trimmed based upon application of a threshold to the intensity histogram profiles.

1 6. The method of claim 4, wherein the non-graphical bar code regions are  
2 trimmed based upon a comparison of expected graphical bar code dimensions with  
3 the intensity histogram profiles.

1 7. The method of claim 3, further comprising de-skewing the detected  
2 graphical bar code candidate before the non-graphical bar code regions are trimmed.

1 8. The method of claim 1, further comprising rotating the input image and  
2 processing the rotated input image to detect a graphical bar code candidate in  
3 response to a failure to detect a graphical bar code candidate in the input image  
4 before rotation.

1           9.     The method of claim 1, further comprising detecting a graphical bar  
2 code candidate based upon a second training sample in response to a failure to detect  
3 a graphical bar code candidate in the input image based upon a first training sample.

1           10.    The method of claim 9, wherein the second training sample is a rotated  
2 version of the first training sample.

1           11.    The method of claim 1, further comprising extracting a second  
2 graphical bar code candidate detected in the input image in response to a  
3 determination that a first extracted graphical bar code candidate does not correspond  
4 to the graphical bar code.

1           12.    The method of claim 1, further comprising resolution scaling the  
2 trimmed graphical bar code candidate.

1           13.    A system for extracting from an input image a graphical bar code  
2 containing graphically encoded information, comprising a graphical bar code  
3 extractor configured to:

4               trim non-graphical bar code regions from the input image based upon  
5 estimated position coordinates for a detected graphical bar code candidate to produce  
6 a trimmed graphical bar code candidate for decoding.

1           14.    The system of claim 13, wherein the graphical bar code extractor is  
2 configured to crop the input image before trimming based upon estimated position  
3 coordinates for a detected graphical bar code candidate to produce an inclusive  
4 image region encompassing the detected graphical bar code.

1           15.    The system of claim 13, wherein the non-graphical bar code regions are  
2 trimmed based upon intensity histogram profiles obtained by summing intensity  
3 values along orthogonal axes corresponding to a computed angular orientation of the  
4 detected graphical bar code candidate.

09877581.060701  
F02090-T8522860

1           16.    The system of claim 13, wherein the graphical bar code extractor is  
2 configured to de-skew the detected graphical bar code candidate before the non-  
3 graphical bar code regions are trimmed.

1           17.    The system of claim 13, wherein the graphical bar code extractor is  
2 configured to rotate the input image and process the rotated input image to detect a  
3 graphical bar code candidate in response to a failure to detect a graphical bar code  
4 candidate in the input image before rotation.

1           18.    The system of claim 13, wherein the graphical bar code extractor is  
2 configured to detect a graphical bar code candidate based upon a second training  
3 sample in response to a failure to detect a graphical bar code candidate in the input  
4 image based upon a first training sample.

1           19.    The system of claim 13, wherein the graphical bar code extractor is  
2 configured to extract a second graphical bar code candidate detected in the input  
3 image in response to a determination that a first extracted graphical bar code  
4 candidate does not correspond to the graphical bar code.

1           20.    A computer program residing on a computer-readable medium and  
2 comprising computer-readable instructions for causing a computer to:

3           trim non-graphical bar code regions from the input image based upon  
4 estimated position coordinates for a detected graphical bar code candidate to produce  
5 a trimmed graphical bar code candidate for decoding.

*Add A'* →